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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | **Faculty of Electronic Engineering** |
| **GENERAL INFORMATION** |
| Study program  | Electrical Engineering and Computing |
| Study Module (if applicable) | Electrical Power Engineering |
| Course title | Selected Chapters of High Voltage Power Plants |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | 1st  |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Korunović M. Lidija |
| Teaching mode |  [x] Lectures [x] Group tutorials [ ]  Individual tutorials [x] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introduce the elements of high voltage power plants and the role of these plants in electric power systems. Calculation of short circuit currents and their characteristic values necessary for selection and testing of equipment and apparatus. Introduce the standards and recommendations for design of high voltage electric power plants. Students have knowledge of high voltage power plants necessary for dimensioning of equipment and design of high voltage power plants, as well as for their maintenance and exploitation.  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Transformer - the element of high voltage power plants: economic aspects of transformer exploitation, heating of the transformer and transformer selection. Time-dependent change of short-circuit current, ac and dc component and characteristic values of short-circuit currents. Critical conditions for equipment selection. Thermal and mechanical calculations of the elements in high voltage power plants. Selection and testing of the elements and equipment in high voltage power plants. Main and auxiliary schema of high voltage power plants. Distribution TS HV/MV and MV/LV. Disposition of high voltage power plants. Grounding of high voltage power plants. Practice teaching includes solution of computational tasks in the areas of theoretical teaching and visiting electric power plants. |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [ ]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] Serbian with English mentoring [ ] Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** |  | **Written examination** | **20** |
| **Practical teaching** |  | **Oral examination** | **20** |
| **Teaching colloquia** | **60** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |